Claims

1. A coolant for an air bag inflator which is cylindrical in shape, disposed in a housing of said inflator in order to cool and/or purify a gas discharged from said inflator, wherein said coolant is obtained by compressing a molded product made of wire rods on the axially opposite ends thereof.

2. A coolant for an air bag inflator according to claim 1, which is cylindrical in shape, disposed in a housing of said inflator in order to cool and/or purify a gas discharged from said inflator, wherein said coolant is obtained by compressing a molded product made of wire rods at least in the axial direction, and an absolute value of a difference between a radial pressure loss of the axially upper half portion of said coolant and a radial pressure loss of the axially lower half portion of said coolant is 10 mmH_2O or less at a flow rate of 250 liters/minute under the atmosphere of 20°C.

3. A coolant for an air bag inflator according to claim 2, wherein an absolute value of the difference between the radial pressure losses of the axially upper half portion of said coolant and the radial pressure loss of the axially lower half portion of said coolant is 6 mmH_2O or less at a flow rate of 250 liters/minute under the atmosphere of 20°C.

4. A coolant for an air bag inflator according to claim 2 or 3, wherein the radial pressure loss of the axially upper half portion

of said coolant is measured in such a manner that an inner surface of the axially lower half of said coolant is covered with a covering member and a gas at a flow rate of 250 liters/minute is introduced into the inside of said coolant under the atmosphere of 20°C, and the radial pressure loss of the axially lower half portion of said coolant is measured in such a manner that an inner surface of the axially upper half of said coolant is covered with a covering member and a gas at a flow rate of 250 liters/minute is introduced into the inside of said coolant under the atmosphere of 20°C.

5. A coolant for an air bag inflator according to claim 1, which is cylindrical in shape, disposed in a housing of said inflator for the air bag in order to cool and/or purify a gas discharged from said inflator, wherein said coolant is obtained by compressing a molded product made of wire rods at least in the axial direction, and a difference in pressure losses between axially opposite ends of said coolant is 10 mmH_2O or less, when it is measured in accordance with the following method:

1) an inner peripheral surface of a cylindrically formed coolant is covered from its axial end to its one-half the height with an annular covering member;

2) one end of said coolant in which the covering member is fitted is closed with a supporting member having a manometer, the other end of said coolant is closed with another supporting member having a gas-inflow pipe and a gas-flow meter, and said coolant is fixed axially so that air will not leak between the ends of said coolant and the supporting members;

3) the air at a flow rate of 250 liters/minute is introduced from the gas-inflow pipe into an inner space of the covering member under the atmosphere of 20°C, and the pressure loss is measured;

4) next, said coolant is turned upside down in the axial direction, the opposite side of 1) (i.e., the side through which the air passed in 3)) is now covered with the covering member, and the pressure loss of said coolant is measured under the same conditions as 2) and 3); and

5) a difference in the pressure loss values obtained in 3) and 4) is obtained, and its absolute value is determined as a difference in radial pressure losses in the axial ends of said coolant.

6. A coolant for an air bag inflator according to any one of claims 1 to 5, wherein a bulk density of said coolant is 3.0 to 5.0 g · cm^{-3}, and said coolant has a pressure loss of 10 mmH_2O to 2000 mmH_2O with respect to an amount of air of 1000 liters $minute^{-1}$ under the atmosphere of 20°C.

7. A coolant for an air bag inflator according to any one of claims 1 to 6, wherein said coolant is an annular laminated body made of wire mesh formed by plainly knitting stainless-steel wire rods, and said laminated body is compressed.

8. A method of producing a coolant for an air bag inflator comprising the steps of compressing a cylindrical molded product at least axially, wherein, in said compressing process, said molded

product is compressed in the axial direction on the axially opposite ends thereof.

9. A method of producing a coolant according to claim 8, wherein said compressing process is carried out such that an absolute value of a difference between a radial pressure loss of the axially upper half portion of the molded product and a radial pressure loss of the axially lower half portion of the molded product becomes 10 mmH_2O or less at a flow rate of 250 liters/minute under the atmosphere of 20°C.

10. A method of producing a coolant according to claim 8, wherein said compressing process is carried out such that a difference in pressure losses between axially opposite ends of the molded product is adjusted to be 10 mmH_2O or less when it is measured in accordance with the following method:

1) an inner peripheral surface of a cylindrical coolant is covered from its axial end to its one-half the height with a covering member;

2) one end of said coolant in which the covering member is fitted is closed with a supporting member having a manometer, the other end of said coolant is closed with another supporting member having a gas-inflow pipe and a gas-flow meter, and said coolant is fixed axially so that air will not leak between the ends of said coolant and the supporting members;

3) the air at a flow rate of 250 liters/minute is introduced from the gas-inflow pipe into an inner space of the covering member

under the atmosphere of 20°C, and the pressure loss is measured;

4) next, said coolant is turned upside down in the axial direction, the opposite side of 1) (i.e., the side through which air passed in 3)) is now covered with the covering member, and the pressure loss of said coolant is measured under the same conditions as 2) and 3); and

5) a difference in the pressure-loss values obtained in 3) and 4) is obtained, and its absolute value is determined as a difference in radial pressure losses in the axial ends of said coolant.

11. A method of producing a coolant according to any one of claims 8 to 10, wherein said compressing process includes the first compression step of compressing the molded product in its axial direction, and the first process is followed by the second compression step of turning the molded product axially upside down and further compressing the molded product in the axial direction.

12. A method of producing a coolant according to 10, wherein compressing distances in the first and second compression stepes are substantially equal.

13. A method of producing a coolant according to any one of claims 8 to 12, wherein said molded product is compressed also in the radial direction in the compressing process.

14. A method of producing a coolant according to any one of claims

8 to 13, wherein said molded product is an annular laminated body obtained by forming a plain-knitted wire mesh made of stainless-steel wire rods into a cylindrical body and folding one end of said cylindrical body outwardly and repeatedly.

15. A method of producing a coolant according to any one of claims 8 to 13, wherein said molded product is an annular laminated body obtained by forming a plain-knitted wire mesh made of stainless-steel wire rods into a cylindrical body, pressing the cylindrical body in the radial direction to form into a plate body, and then rolling said plate body many times cylindrically.

16. A air bag inflator comprising, in a housing thereof with a gas discharge port, an ignition means to be activated upon an impact, gas generating means which is to be ignited and burnt due to activation of the ignition means for generating a combustion gas, and coolant means for purifying and/or cooling said combustion gas, wherein said coolant means is the coolant means according to any one of claims 1 to 7.

17. An air bag apparatus comprising:

an air bag inflator;

an impact sensor for detecting an impact to activate said inflator;

an air bag introducing therein a gas generated by said inflator to inflate; and

a module case for accommodating said air bag, wherein

said air bag inflator is the inflator according to claim 16.